



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,464	12/31/2001	Ron W. Rogers	9973	4003

26884 7590 05/11/2005

PAUL W. MARTIN
LAW DEPARTMENT, WHQ-4
1700 S. PATTERSON BLVD.
DAYTON, OH 45479-0001

EXAMINER

HEWITT II, CALVIN L

ART UNIT	PAPER NUMBER
----------	--------------

3621

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,464

Applicant(s)

ROGERS ET AL.

Examiner

Calvin L Hewitt II

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20 are drawn to a method and system for providing secure transactions classified in class 705, subclass 64.
 - II. Claims 21-25 are drawn to load balancing in wireless environment classified in class 455, subclass 453.
2. Newly submitted claims 21-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Inventions I and II are related subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as securely transmitting credit card data. While invention II has separate utility such as monitoring wireless network traffic- See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.

4. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP 821.03. Applicant is respectfully requested to cancel the non-elected claims in response to this office action.

Status of Claims

5. Claims 1-20 have been examined.

Response to Amendments/Arguments

6. Applicant is of the opinion that the prior art combination ... fails to teach Applicant's claimed system and method. The Examiner respectfully disagrees. Applicant's analysis is based on the fact that Cory et al. continuously generate traffic. However, the Examiner's rejection is based on the teachings of Nordenstam et al. *in view of* Cory et al. (and Munger et al.) and Cory et al. clearly suggest to one of ordinary skill a technique for thwarting malicious traffic analysis by mixing dummy messages with valid messages ('359, column 1, lines 15-23). And contrary to Applicant's contention, such an approach would be useful to one

of ordinary skill independent of the technology used to transmit the message. For following the Applicant's rationale, encryption would still only be used to hide messages written on paper as they could not be applied to internet purchases, cable TV transmissions, smart cards, or computer software because they do not use ink. History and technology, however, have proven Applicant's thinking incorrect. The Examiner would like to remind the Applicant that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference but what the combined teachings of the references would have suggested to those of ordinary skill in the art (*In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981)). Regarding the determination of dead space intervals on a store host computer based upon a load on the store host computer, Munger et al. clearly teach that decoy or dummy messages may be generated based on any algorithm ('135, column 12, 19-62). For example, Munger et al. teach generating dummy messages based on the flow or pattern of messages or "load" (Recall, a definition for "load" is the volume of message traffic expected from terminals during a communication interval) ('135, column 12, lines 26-33). In the base reference of Nordenstam et al. the most appropriate determiner of traffic is the host terminal (figure 3; page/line 19/4-20/8; page 21, lines 5-25), therefore, it would have been obvious to combine the teachings of Nordenstam et al. with the security techniques of Cory et al. and Munger et al. in order to create a more secure system for transmitting sensitive

data wirelessly ('959, figure 3; page 21, lines 5-25; '359, column 1, lines 12-18; '135, column 10, lines 12-21).

The Examiner maintains the 101 rejection to claims 1-20 as they continue lack utility.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and the claimed invention lacks patentable utility.

Claims 1, 8 and 15 are directed to non-statutory subject matter. According to the MPEP claims that merely recite abstract ideas without a practical application are non-statutory (MPEP 2106, "Non-Statutory Subject Matter", pages 10 and 11). Applicant's claimed method, system and apparatus are dedicated to the abstract idea of an algorithm for generating messages without a practical utility (i.e. lacks utility).

Claims 2-7, 9-14 and 16-20 are also rejected as they depend from claims 1, 8 or 15.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 2 and 8-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended claim 8 to recite “determining dead space intervals on a store host computer based upon a load on the store host computer.” While claim 2 recites “load balancing”. To define “load” Applicant refers back to the Specification (page 9, lines 9-11) where “load” is defined as the volume of message traffic expected from terminals [14a - 14n] during a communication interval *and* the estimated time required for processing the messages to generate response messages (emphasis added). However, “volume” and “time” are different measures. Therefore, according to the Applicant, “load” has two separate and distinct meanings. In order to accurately determine the scope of the claimed method it is required that Applicant indicate which definition, or both, is being used.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordenstam et al., International Publication Number WO200046959 in view of Cory et al., U.S. Patent No. 4,262,359 and Munger et al. U.S. Patent No. 6,502,135.

As per claims 1-20, Nordenstam et al. teach a system for transmitting data from a wireless terminal to a host computer in a store (figure 3; page/line 19/4-20/8; page 21, lines 5-25). Nordenstam et al. also teach transmitting encrypted information from said wireless terminal (page 25, lines 15-20). Regarding "load balancing", it is well known to those of ordinary skill in networking to monitor network traffic and perform "load balancing" to prevent the overloading of circuits at a receiving node or station. Therefore, it would have been obvious in light of the teachings of Nordenstam et al. to utilize load balancing in order to reduce the load on a transaction terminal (page 19, lines 4-15). Nordenstam et al. do not

explicitly recite transmitting "bogus messages". Cory et al. disclose a secure method and system for transmitting data over a network by coupling a "bogus message" generator to a transmission source (column 1, lines 24-28) and inserting encrypted "bogus messages" during the "dead space" (i.e. dead space greater than a threshold or "non-zero" or the existence of dead space) between valid messages (column 1, lines 13-27), which are in turn, decrypted and filtered out upon reception by a receiver (column 1, lines 19-24 and 28-34). Hence, Cory et al. teach transmitting bogus messages in response to an actual message. However, neither Nordenstam et al. nor Cory et al. teach monitoring a parameter on the receiving end of a transmission and using said parameter to trigger the generation and transmission of a bogus message. Munger et al. teach a method for generating "bogus messages" at a transmission node based on monitored network traffic conditions (column 10, lines 15-34; column 12, lines 20-30). For example, Munger et al. teach generating bogus messages randomly or based on time of day and during low traffic (column 12, lines 27-33). The Munger et al. system, however, is not limited to any particular algorithm (column 12, lines 26-28). The only requirements of the Munger et al. teaching is that the chosen algorithm generate bogus messages for foiling malicious traffic analysis efforts (column 12, lines 20-26). Hence, it would have been obvious to one of ordinary skill, in light of the clear teachings of Munger et al., to utilize any algorithm as long as it is in accordance with the policies and desires of the network managers

for creating a secure network. Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Nordenstam et al., Cory et al. and Munger et al. in order to protect sensitive data, such as credit card data, transmitted over the network of Nordenstam et al. ('959, figure 3) from malicious traffic analysts ('359, column 1, lines 12-18; '135, column 10, lines 12-21).

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3621

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Calvin Loyd Hewitt II whose telephone number is (571) 272-6709. The Examiner can normally be reached on Monday-Friday from 8:30 AM-5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, James P. Trammell, can be reached at (571) 272-6712.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

c/o Technology Center 2100

Washington, D.C. 20231

or faxed to:

(703) 305-7687 (for formal communications intended for entry and after-final communications),

or:

(571) 273-6709 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Calvin Loyd Hewitt II

May 6, 2005


JAMES P. TRAMMELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600